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# Prevention

## PERFORMANCE OF DPP-4 INHHIBITORS VERSUS SULFONYLUREAS ON TOP OF METFORMIN IN A REAL WORLD SETTING: RESULTS OF TWO-YEAR FOLLOW-UP OF THE PROSPECTIVE DIAREGIS REGISTRY

Poster Contributions
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Authors: *Anselm K. Gitt, Peter Bramlage, Steffen Schneider, Christiane Binz, Michael Krekler, Diethelm Tschoepe, DiaRegis Study Group, Herzzentrum Ludwigshafen, Ludwigshafen, Germany, Institut f. Herzinfarktforschung Ludwigshafen an der Universitaet Heidelberg, Ludwigshafen, Germany*

**Background:** Randomised trials with intensive glucose control have identified the importance of hypoglycaemia as treatment complication. Data on the incidence of hypoglycaemia dependent on different oral treatment strategies in clinical practice are scarce.

**Methods:** DiaRegis is a German prospective registry including patients with type-2 diabetes on oral mono- or oral dual anti-diabetic combination therapy with 24 months follow-up (FU). We examined the incidence of hypoglycaemia in diabetic outpatients who were switched from metformin mono-therapy to dual oral anti-diabetic therapy with either metformin and sulfonylurea (Met+SU) or metformin and DDP-4-inhibitors (Met+DPP4).

**Results:** Of 3,746 consecutive patients with type 2 diabetes, 1,110 had been on metformin mono therapy, of whom 780 (70.6%) received additional DPP4 and 324 (29.4%) SU. Patients with Met+DPP4 were younger, but did not differ in co-morbidities or in diabetes duration. There were no differences in glycaemic control (HbA1c, fasting glucose) at baseline and at FU. Patiens with Met+DPP4 had lower postprandial glucose at FU. Patients with Met+DPP4 experienced a larger weight loss during FU. No differences were documented in macro- or microvascular complications. Patients with Met+DPP4 significantly less often suffered from hypoglycaemias.

**Conclusion:** Patients receiving DPP4 inhibitors had more weight loss and a reduced risk for hypoglycaemia. There were no differences in the rate of micro- and macrovascular events during FU.

| | Met+DPP4 (n=783) | Met+SU (n=327) | p-value |
|---|---|---|---|
| Age (years, IQR) | 64.1 (56.8-72.0) | 67.5 (58.2-72.8) | <0.05 |
| Diabetes duration (%) | 4.6 | 5.2 | ns |
| Females (%) | 27.6 | 46.9 | ns |
| Hypertension (%) | 83.8 | 82.1 | ns |
| Coronary heart disease (%) | 15.8 | 14.4 | ns |
| Stroke / TIA (%) | 4.1 | 4.3 | ns |
| Periph. Arterial disease (%) | 5.2 | 4.1 | ns |
| Auton. Neuropathy (%) | 3.1 | 2.5 | ns |
| HbA1c at baseline (%) | 7.3 | 7.3 | ns |
| HbA1c at 24 mo FU (%) | 6.8 | 6.8 | ns |
| Fasting Glucose baseline (mg/dl) | 137 | 140 | ns |
| Fasting Glucose 24 mo FU (mg/dl) | 122 | 118 | ns |
| Postprandial Gluc. baseline (mg/dl) | 176 | 178 | ns |
| Postprandial Gluc. 24 mo FU (mg/dl) | 152 | 168 | <0.05 |
| Weight change 24 mo (kg) | -1.2 | -0.6 | <0.05 |
| Mortality at 24 mo FU (%) | 1.1 | 1.9 | ns |
| Hypoglycaemia (24 mo FU, %) | 8.6 | 15.1 | <0.001 |
| Hypoglycaemia with help (%) | 0.4 | 0.8 | <0.001 |